

Shut-down Procedures

For Seasonal Non-Community Water Systems

June 2005

DOH PUB. #331-311

When operation of the water system is completed for the year, the system should be inspected, cleaned, and protected until re-opening the next season. If proper steps are taken upon shut down of the system, it will be in good shape and need fewer repairs and maintenance work prior to re-opening.

1. Evaluate the System

- Inspect the water system using the Small Water System Self-Inspection Checklist (DOH Publication 331-312).
- Look for problems with the system needing attention or repair in the off-season.
- Read a final source meter reading for the system and record it on the checklist.

2. Drain and Repair the Storage Tank

- Drain all water out of the storage tank.
- Inspect the tank for cracks and make any needed repairs.
- Clean out any sediment accumulated on the bottom of the tank.
- If you see growth on the walls of the tank, you may choose to chlorinate them by spraying on a concentrated chlorine solution [50 parts per million (ppm)] and letting it sit for four hours.

Please note: Chlorine may be hazardous in a confined space, so the chlorination should only be done by a professional or if you have received confined space training. You will be chlorinating the tank prior to re-opening, so this step may or may not be necessary.

- Check the reservoir for openings which would allow for the entry of rodents, insects, or other contaminants, and correct as needed. Inspect vents and overflows and re-screen if needed.

3. Pressure Tanks

- If there is any concern for freezing, drain your pressure tank(s) when not in use. Contact the manufacturer if you need instructions on how to do this.
- If freezing is not an issue, you may choose to drain the tank(s) or leave it full. If you leave it full, it is important the full volume of water in the tank is chlorinated with at least 5 ppm of chlorine prior to start-up.

4. Shut Down the Source(s)

- For most sources, you will want to turn off the power supply in the off-season. Be sure to take steps necessary to protect your source, equipment, and structures. Consider freezing, vandalism, vermin, flooding, severe rain events, etc. Depending on your situation relative to these factors, this may mean leaving the power supply to the source turned on.
- If the system will be closed through the winter, take steps to protect the system components from freezing. Insulate using styrofoam if possible. Vermin may be attracted to shredded paper or fiberglass insulation and it is not recommended you use these materials to winterize.
- Check the source(s) for openings which would allow for the entry of rodents, insects or other contaminants and correct as needed.

5. Shut Down Treatment

- Turn off the power to all treatment systems.
- Discard unused chlorine solutions and stock.
- For other treatment systems, refer to advice from your manufacturer as to what to do with the equipment and chemicals or filter media when not being used.

6. Protect the Distribution System

- Do not leave taps open in the off-season.
- Never use anti-freeze in your water system since it is a health hazard.
- Exercise valves and ensure they're working. Repair if needed.

7. When your System is Closed

- Compile your operations and water quality records for the year. Note periods of peak water use, any water quality problems, and unexpected events. Use this information to plan for next year.
- Review your coliform monitoring plan and update it if needed. Ensure sample locations are representative of the system and you avoid bad sample sites.
- This is the time to make large scale improvements to your system, if needed. Work other than repair and replacement usually requires Department of Health (DOH) approval prior to the start of work. Contact your DOH regional engineer for guidance.
- Take continuing education courses to improve your knowledge. For a list of courses, check the DOH Web site at: www.doh.wa.gov/ehp/dw

For More Information

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